20 June, 2001

MODIS sensor Working Group (MsWG) Summary

Attendance: Bill Barnes, Bob Evans, Bruce Guenther, Chris Moeller, Eric Vermote, Gary Toller, Jack Xiong, Jim Young, Roger Drake, Stuart Biggar, Vince Salomonson, Wayne Esaias, Gwyn Fireman, Vincent Chiang, Junqiang Sun

Scheduled Items

RSB SD degradation and m1 LUT trending updates:

Values for one-year consistent processing remain close to valued predicted from prior data. If deviation exceeds 1%, MCST will bring it to the science team's attention.
Action 0106-08: Provide a table of deviation per band, averaged over a longer period (6 months or a year).

Recent MODIS Anomaly and Terra S/C SSR anomaly

- MODIS is in survival mode. The anomaly appears to have been caused by a problem in the Side B power supply.
- Two more weeks of evaluation are expected before MODIS will be powered up.
- At least three weeks of data will be lost, with implications for consistent one-year processing.
- If Side B electronics come back up, we must revalidate calibration.
- Side A LUTs must be prepared in case operations resume on electronics Side A.
- A hybrid mode using Side A power supply with Side B electronics seems unlikely.
- More discussion will take place at a meeting this Thursday.
- The SSR is back up after its most recent anomaly; it is not known if other instruments are sending science data.

Around the Table

MCST:

- RSB and TEB changes are complete; changes to preprocessor code are in progress.
- Will have a walkthrough of Crosstalk code changes early next week.
- If code changes are approved at the walkthrough, processing of test granules may begin as early as the end of next week.

Evans:

Consistently in short-wavelength ocean bands, 4–6% higher radiance is seen on the eastern side of a scan than on the western end, even after a polarization correction is applied. The effect is also apparent to a lesser extent at longer wavelength RSBs. Miami is trying to derive a correction to the effect, as it developes Level 2 products. They are working to understand how much of the variability is geophysical and how much is instrumental.

Moeller:
Looked at a cold granule to test Band 26 sensitivity to Band 5 signal. The empirical crosstalk correction works to remove surface features; more testing is required.

Biggar:
- Team will return to Railroad Valley on June 30; concurrent validation with AVIRIS flight and EO1 passes are scheduled.
- Observes a wavelength-independent bias of about 3% between MODIS and Landsat ETM radiance values in VIS-NIR bands. A correction is applied in order to compare bands from the two instruments. Barnes has also seen a bias wrt TRMM/VIRS, in the sense that MODIS values are consistently higher than VIRS.

Guenther:
- Q: Was any useful information gleaned from direct-broadcast data received just before the latest anomaly?
  A: The DAAC received regular data from a TDRSS pass covering the event. All science data was OK, with no hints of trouble before MODIS went down. The LW focal plane temperature was a little noisier than before.
- Q: Moeller reported a center-wavelength uncertainty of ± 2 nm for Bands 33 – 36. Are the RSRs reported with this wavelength registration uncertainty?
  A: MCST has not yet made FM1 RSR values available.
  Action 0106-09: Check PFM RSR values available on the web for reporting of wavelength registration uncertainty.

SBRS:
New SDSM aperture parameters reported in the June 6 MsWG minutes do not match values in the SBRS memo sent to MCST.

compiled by G. Fireman 22 June, 2001